

ABSTRACT

09/190618

In a thin film transistor (TFT), a mask is formed on a gate electrode, and a porous anodic oxide is formed in both sides of the gate electrode using a relatively low voltage. A barrier anodic oxide is formed between the gate electrode and the porous anodic oxide and on the gate electrode using a relatively high voltage. A gate insulating film is etched using the barrier anodic oxide as a mask. The porous anodic oxide is selectively etched after etching barrier anodic oxide, to obtain a region of an active layer on which the gate insulating film is formed and the other region of the active layer on which the gate insulating film is not formed. An element including at least one of oxygen, nitrogen and carbon is introduced into the region of the active layer at high concentration in comparison with a concentration of the other region of the active layer. Further, N- or P-type impurity is introduced into the active layer. Accordingly, high resistance impurity regions are formed in both sides of a channel forming region.

09190618-11298